

ABSTRACT OF THE DISCLOSURE

A manufacturing method for high-density iron-based powder compacts is disclosed. The temperature of the die is adjusted at ordinary temperature or at a predetermined temperature by preheating. A lubricant for die lubrication prepared by mixing at least two different lubricants having melting points higher than a predetermined temperature of the compaction pressure is sprayed at the upper part of the die and is introduced into the die and adhered by electrification to the surface of the die. The resulting die is filled with an iron-based mixed powder including a lubricant and molding is performed at ordinary temperature or at a temperature raised by heating. The at least two different lubricants having melting points higher than the predetermined temperature of the compaction pressure are preferably at least two materials selected from at least one of the following groups: metallic soaps, amide-based waxes, polyamides, polyethylenes, polypropylenes, polymers comprised of acrylic acid esters, polymers having methacrylic acid ester, plastics including fluorine and lubricants having layered crystal structures.